

Remarks

Claims 1-20 were pending in the present application, with claim 20 withdrawn from consideration. Claims 1, 3, 8, 11, 12, and 18 have been amended. Claims 2 and 20 have been canceled without prejudice, and new claims 21 and 22 have been added. Support for new claims 21 and 22 may be found in original claims 20 and 17, respectively. Please note that claims 18 and 21 depend from claim 1. Therefore, claims 1, 3-19, 21, and 22 are now pending in the present application.

Election/Restriction

Applicant affirms election without traverse of a rechargeable cooling device and method, corresponding to original claims 1-19.

Drawings

New corrected drawings are required by the PTO. Replacement drawings meeting PTO requirements are attached.

Allowable Subject Matter

Examiner Zec is sincerely thanked for indicating that claims 8-10 contain allowable subject matter.

Claim Rejections

Claims 1, 2, 12-14, and 17-19 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,349,560 to Maier-Laxhuber et al. (hereinafter “Maier”). Claims 3-7 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Maier. Claim 15 is rejected under 35 U.S.C. §103(a) as being unpatentable over Maier in

view of U.S. Patent No. 4,976,112 to Roberts et al. (hereinafter “Roberts”). Applicant respectfully traverses these rejections for at least the following reasons.

Amended claim 1 recites that the liquid comprises a refrigerant having a vapor pressure at room temperature greater than approximately 1 atm. In sharp contrast, Maier discloses a sorption refrigeration apparatus in which water is used as the working medium. (Col. 3, line 1.) At room temperature, the vapor pressure of water is a tiny fraction of 1 atm, and does not reach 1 atm until its temperature reaches 100°C. Maier does not disclose, teach, or suggest a refrigerant having a vapor pressure at room temperature greater than approximately 1 atm.

Roberts does not cure the deficiencies of Maier. Roberts discloses a cold storage cabinet using liquefied gas, but the only refrigerant actually disclosed by Roberts is liquid nitrogen. However, nitrogen does not liquefy at room temperature at any pressure. Therefore, Roberts does not disclose a liquid comprising a refrigerant having a vapor pressure at room temperature greater than approximately 1 atm. Further, assuming *arguendo* that Roberts does disclose such a liquid (which it does not), one of ordinary skill in the art would not have been motivated to combine the references in the manner necessary to arrive at claim 1 of the present application. Maier utilizes a closed-loop sorption refrigeration cycle using water as the working medium, while Roberts utilizes an open system in which boiling liquid nitrogen extracts heat from a cold storage cabinet. Importing the open liquid nitrogen system of Roberts into the closed-loop water system of Maier would impermissibly change Maier’s principle of operation. MPEP §2143.02.

Therefore, claim 1, and all claims dependent thereupon, are believed to be patentable over the cited references. Withdrawal of the rejections is respectfully requested.

Amended claim 12 recites that the cooling device further comprises a refrigerator comprising a second heat exchanger connected to at least one of the first and second reservoirs, the refrigerator configured to cool and condense the vapor during recharging of the cooling device. In sharp contrast, Maier discloses a sorption refrigeration system in which “the liquid coolers 1 are regenerated by applying the heating devices [20, 21, 23] after refilling with beverages.” (Col. 5, lines 60-65, emphasis added.) Maier simply does not disclose, teach, or suggest a refrigerator configured to cool and condense the

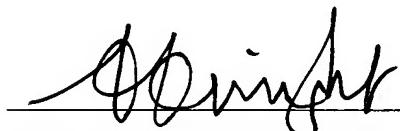
vapor during recharging of the cooling device. Roberts fails to cure the deficiencies of Maier.

Therefore, claim 12, and all claims dependent thereupon, are believed to be patentable over the cited references. Withdrawal of the rejections is respectfully requested.

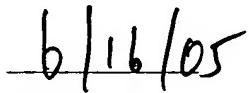
Conclusion and Fees

Because Applicant has paid for 20 claims and 3 independent claims, and because there are now 20 claims and 3 independent claims pending, Applicant believes that no fee is due. Applicant believes that all outstanding issues have been resolved, and respectfully requests a Notice of Allowance. If Examiner Zec believes that a telephone conference will further prosecution of the present case, he is invited to contact Applicant at the number indicated below.

Respectfully,



Andrew F. Knight, Applicant
2770 Airline Goldmine Rd.
Canon, GA 30520
703-795-7375



Date